

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 52-R-0012  
CUSTOMER NUMBER: 492

FORM APPROVED  
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY**  
( TYPE OR PRINT )

V A Polytechnic Institute & State University  
301 Burruss Hall  
Blacksburg, VA 24061

Telephone: (540) -231-4991

3. REPORTING FACILITY ( List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary )

FACILITY LOCATIONS ( Sites ) - See Attached Listing

**REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY ( Attach additional sheets if necessary or use APHIS Form 7023A )**

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquil drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. ( An explanation of the procedures producing pain or distress in these animals and the reas such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS  ( COLUMNS C + D + E )
4. Dogs		19	78	9	106
5. Cats		11	20		31
6. Guinea Pigs					
7. Hamsters		13		231	244
8. Rabbits		2	16		18
9. Non-human Primates					
10. Sheep		2			2
11. Pigs		6	38		44
12. Other Farm Animals		2	1		3
Cow					
Horse			66		66
13. Other Animals					
Black Bear		1	2		3
Goat			14		14
Ferret		6			6

**ASSURANCE STATEMENTS**

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and an Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
( Chief Executive Officer or Legally Responsible Institutional Official )

SIGNATURE

(b)(6), (b)(7)(c)

DATE SIGNED

11/20/07

APHIS

( AUG 91 )

*Signature*

## Column E Explanation

This form is intended as an aid in completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **52-R-0012** Customer Number: **492**
2. Number of animals used in the study: **Category E - 9**
3. Species (common name) of animals used in the study: **Dog**
4. Explanation of the procedure producing pain and/or distress:

The objectives of this study are to determine if hypothyroidism (deficiency of thyroid hormones) has a negative impact on reproductive performance in female dogs. Supportive care for complications of hypothyroidism will be administered as described later. Hypothyroidism will cause some abnormalities including lethargy, weight gain, hair loss, flaky skin, low heart rate that will require no treatment. Other problems, including severe weakness (peripheral neuropathy), other neurologic abnormalities (facial or vestibular nerve paralysis, head tilt, nystagmus), stupor, or coma will be treated with levothyroxine (0.02 mg/kg BID orally). If these signs occur and the dog will not be used in the future in this or related studies, it will be euthanized with an overdose of pentobarbital. If a single seizure occurs, the dog will be observed evaluated by a board certified veterinary neurologist and appropriate care will be prescribed based on his or her recommendations. Illness refractory to medical intervention including weight loss > 20%, anorexia for > 1 week, repeated seizures not responsive to treatment, other health problems refractory to medical intervention including thyroid hormone supplementation, intravenous fluid therapy, and other therapy provided by the Attending Veterinarian or the Veterinary Teaching Hospital will result in the animal being euthanized by intravenous administration of beuthanasia D (1 ml/10 lbs).

5. Scientific Justification why pain and/or distress could not be relieved. A description of the methods or means used to determine that pain and/or distress relief would interfere with test results. (If Federally mandated testing, a description is provided in Item 6 below.)

The IACUC categorized this as an "E" because it created a longterm significant deficit in the animals that was not to be ameliorated. Hypothyroidism will be induced in order to study the effects of hypothyroidism on reproduction. The only relief of hypothyroidism is hormone replacement treatment to resolve hypothyroidism, thus it would negate the purpose of the experiment. This is not a painful disease, so analgesia should not be necessary.

6. The federal regulation(s) requiring this procedure is/are listed below. The agency, the Code of Federal Regulations (CFR) title number and the specific section number are provided.

Agency: \_\_\_\_\_

CFR: \_\_\_\_\_

## Column E Explanation

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1. Registration Number: **52-R-0012** Customer Number: **492**
2. Number of animals used in the study: **Category C – 13; Category E - 231**
3. Species (common name) of animals used in the study: **Hamster**
4. Explanation of the procedure producing pain and/or distress:

(b)(4)

5. Scientific Justification why pain and/or distress could not be relieved. A description of the methods or means used to determine that pain and/or distress relief would interfere with test results. (If Federally mandated testing, a description is provided in Item 6 below.)

(b)(4)

6. The federal regulation(s) requiring this procedure is/are listed below. The agency, the Code of Federal Regulations (CFR) title number and the specific section number are provided.

Agency: \_\_\_\_\_

CFR: \_\_\_\_\_